Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

LIFE AND NATURE IN SOUTHERN LABRADOR.

BY A. S. PACKARD.

THE following recollections of our student days are offered with the suggestion that our college boys of the present day might spend to advantage the long summer vacation in cruising on our northern coasts, and combine in agreeable proportions science and travel.

In the summer of 1860, while a student in Bowdoin College, I joined the Williams College expedition to Labrador and Greenland under the charge of Professor P. A. Chadbourne. June 27th found us on board the *Nautilus*, a staunch schooner of about 140 tons, commanded by Capt. Randlett. Soon after five o'clock of a bright fresh morning our vessel cast off from the wharf at Thomaston, Me. The Thomaston band played a lively air, a clergyman made a parting address, calling down the blessings of heaven upon the argonauts; our Nestor replied, the students cheering for the citizens of Thomaston and the band, and with a favoring north-west wind the *Nautilus*, gliding down the current of the St. George's river, a deep fiord, in a couple of hours reached the open sea.

Our course lay inside of Monhegan, with its high, bold sea wall. Passing on, the Camden hills recede, and we endeavor with the glass to make out the White mountains, said by some to have been seen by Weymouth from inside of Monhegan. The ocean swell not being conducive to historical controversy, we turn to watch the Mother Carey's chickens and the grampus as well as the fin-back whales sporting in the waves.

By the next morning we had sailed 190 miles from Thomaston, past Cape Sable, and our north-west wind still attending, we bowl along, through schools of porpoise, while two or three whales pass within a few fathoms of our vessel, showing their huge whitish backs. The next day our seven-knot breeze does not fail us, and takes us by the 30th into a region of light winds and calms off the Gut of Canso.

July 1st we sail along Cape Breton island, its red shores glistening in the noon-day sun and then mantled with purple as the sun goes down over Louisbourg. As darkness sets in the lights of Sidney appear. The next morning's sun rose on Cape Ray, around which we beat, passing within a mile of Channels, a fishing village of Newfoundland, behind which rise steep hills clothed with "tucking-bush," or dwarf spruce and larch. Cape Ray pushes boldly into the sea, its precipitous sides of decomposed sandstone furrowed by the rains which pour down its scarred cheeks, on which still linger banks of the last winter's snows.

By the next evening we pass Cape St. Georges. The 4th was celebrated in the Gulf of St. Lawrence amid fog and rain. It was succeeded by a twenty-four hours' gale, rather severe for the season, which tested the excellent qualities of the *Nautilus* as a sea boat. This being our first storm at sea was enjoyed more keenly than similar gales in after years. The sea swept our deck, but only a few drops entered the cabin. The experience was novel and interesting, fortunately we were not sea sick; the long waves sloped up like far-reaching hills; sea birds rode on their crests, and the wind, like a swarm of furies, tore through our rigging. There were but occasional glimpses from the companion way of our dark, close cabin, redolent with the stench of the bilge water. The storm abated after sunset, and the morning of the 6th found us only fifty miles from Caribou island. Toward noon the first iceberg was seen; others came into view, some stranded, others floating on the sea.

The evening was a glorious one; after a gorgeous sunset, the twilight lasting until after ten o'clock, the moon rose upon berg and sea. We were in an arctic ocean; creatures born in the Greenland seas floated past our vessel, and while becalmed at night we fish up from a depth of sixty or seventy fathoms a basket starfish (*Astrophyton agassizii*) large enough to cover the bottom of a pail.

The impressions made on our minds the next day as we approached the coast and passed in shore, winding through the labyrinth of islands fringing the main land, are ineffaceable. That and other days in Southern Labrador are stamped indelibly on our mind. It was passing from the temperate zone into the life and nature of the arctic regions. There is a strange commingling of life-forms in the Straits of Belle Isle. The flora and fauna of the boreal regions struggling, as it were, to displace the arctic forms established on these shores since the ice period, when Labrador was mantled in perennial snow and ice, when the great auk, the walrus and the narwhal abounded in the waters of the Gulf of St. Lawrence, and the Greenland flora, represented by the *Arenaria grœnlandica*, the dwarf cranberry, and the curlew berry or black Empetrum, nestled among the snow and ice of the glacier-ridden hills.

We landed on the morning of July 7th, and I was astonished at the richness of the arctic flora which carpeted the more level portions of the island. Groves of dwarfed alders, over which one could look while sitting down, crowded the sides of the valleys, watered by rills of pure ice-cold water. The groves of spruce and hackmatack were of the same lilliputian height. In the glades of these dwarfed forests, and scattered over the moss-covered rocks and bogs were *Cornus canadensis*, two varieties in flower; *Kalmia glauca* was in profusion, as attractive a flower as any; the curlew berry (*Empetrum nigrum*), the dwarf cranberry, with other flowers and grasses characteristic of the arctic and Alpine regions. Particularly noticeable were the clumps of dwarf willow from six inches to a foot in height, now in flower and visited by the arctic humble bee and other wild bees. Other insects of subarctic and arctic types were numerous, among them a geometrid moth (*Rheumaptera hastata*), which extends from the Alps and snow fields of Lapland around through Greenland and Labrador to the mountain regions of Maine, New Hampshire and Northern New York. The flies, beetles and other forms had an arctic aspect, showing that on the shores of the Straits of Belle Isle the insect fauna is largely tinged with circumpolar forms.

On the 7th of July our party of seven men landed, lodged in a Sibley tent, and the *Nautilus* left us for the Greenland seas with the majority of our party. Our tent, provisions and baggage becoming soaked with the rain and dampness; two days after, we moved over to Caribou island and built a house of Canada clapboards, kindly loaned for the purpose by the Rev. C. C. Carpenter, missionary to Southern Labrador, for whom a large frame house, sheltering under its roof a chapel, study and living rooms was building.

A Canadian clapboard is twelve inches long and six inches wide; with these and a few joists two of the party built a house twelve feet square, which sheltered us from the sun and the black flies, and only leaked when it stormed, which happened regularly twice a week, usually Wednesdays and Sundays. Six berths were put up on the north side (the seventh man was accommodated in the mission house); a wide board placed on two flour barrels at the west end served as a dining and study table, and in the southeast corner a little stove, not over fifteen inches square, with a funnel whose elbow, projecting out-of-doors, had to be turned with every change of wind, was the *focus*, the modernized hearthstone, over which hung our Lares and Penates, sundry hams and pieces of dried beef, *pièces-de-resistance* of our meals, often alleviated by game and fish, clams and scollops or pussels (*Pecten magellanicus*), with oases of seal and whale flesh. How we college boys cooked and ate, rambled and slept in those seven weeks of subarctic life is a subject of pleasant memory. They were days of rare pleasure, of continuous health, and formed an experience whose value lasted through our future lives. We made hunting, ornithological, entomological, botanical and dredging expeditions in all directions, by sea and land; the geology, and the flora and fauna were explored with zeal, and resulted in the discovery of many new forms and the detection of Alpine and arctic European species before unknown to this continent. We investigated the Quaternary formation, ice marks, drift and fossil shells; procured fossils of the Cambrian red sandstone beds, chiefly a sponge (a new species of Archæocyathus), which were scattered along the shore, probably derived from the red sandstone strata so well developed at Bradore, also visited by some of our party. The results were perhaps of some importance to science, and the lessons in natural science we learned of far greater moment to ourselves.

The coast of Labrador is fringed with islands, large and small, from the mouth of the St. Lawrence to Hudson's strait. A sailboat can go with safety from one point to the other, and only occasionally will be exposed to the ocean swell. These islands are the exact counterpart of each other, differing mainly only in size and altitude. Caribou island was two or three miles in length, formed of Laurentian gneiss, which had been worn and molded by glaciers. Its scenic features recalled those of the more rugged portions of the coast of Maine, particularly in Penobscot bay and Mt. Desert. The higher portions of the island is of bare rounded rock, with deep valleys or fissures down which run little rills; these valleys are dense with ferns, shelter many insects, and where they widen out into the lower land support a growth of dwarf spruce, hackmatack and willow. In the more protected parts a few poplars and mountain ash rise to a height of from ten to fifteen feet. The Alpine vegetation is mostly confined to the exposed boggy places or moors, in which are pools of water, supporting water boatmen, case worms, aquatic beetles and numerous water fleas, and an occasional hair worm or Gordius.

Along the lower portions by the shores are patches of salt marsh with shallow pools of water, which in the spring and autumn are undoubtedly frequented by ducks and geese, though only a few of the former were to be seen. Indeed, I was surprised to see so few sea-fowl. They were principally the parroquet, which abounded on the sea a mile or two away from shore. A favorite breeding place of this most interesting of arctic birds was in the soft red Cambrian sandstone of Bradore, an island lying fifteen miles easterly from Caribou island. With their powerful parrot-like beaks they excavate the crumbling rock, extending their galleries in to the distance of several feet. Three of our party made an expedition to this well-known breeding resort, and in thrusting their hands into the burrows received an occasional bite from the sharp strong bills of the birds, which was not soon forgotten. Ducks were occasionally seen, the eider duck and also the coot, as well as the loon, both the northern diver and the red-necked loon. Shore birds, particularly the ring-necked plover, and others of its family, abounded, while the most familiar bird was a white-headed sparrow which nested near our camp.

It was not yet the time for the curlews. About the middle of July the shelldrake and coot, which breed in the inland ponds, lead out their young and appear in great numbers. The old ones are wary and hard to shoot, but the young will then be in fine condition. At this time the "long-shore-men" abandon their diet of salt pork, bread and molasses, and feast on game, for then we were assured they have "great plenty fowl."

In August, also, one or two families of the red Indians or mountaineers of the interior come down to the mouth of the Esquimaux, or "Hawskimaw" river, as it is pronounced by the settlers, to hunt seal, especially the young, and ducks as well as curlew. These Indians are entirely governed in their wandering by the situation of the deer and other game. One may travel a hundred miles up the Esquimaux river without meeting them.

I saw but a single Esquimaux man at Caribou island. His low stature, his prominent, angular cheek bones, pentagonal face and straight black hair sufficiently characterized his stock. The only other native Esquimaux was the wife of an Englishman, John Goddard, the "King of Labrador," who lived on a point of land three miles west of Caribou island. She was a famous hunter, would go out in a boat, shoot a seal and dress it, making boots and moccasins from the skin. Whether these Esquimaux had strayed down from the north or, as I suspect, were the remnants of their people who may have inhabited the entire coast from the Gulf of St. Lawrence to the arctic regions, deserves further investigation.

Few mammals were to be seen. The deer and caribou were confined to the mainland. On our island was a white fox, or rather a blue one, for his summer pelage was of a slate color. His burrow was situated in a hill side behind our house. He would prowl about our camp at night, and he might have known that it was unsafe to come within reach of our guns. His skin undoubtedly adorns the museum of the Lyceum of Natural History of Williams College.

A weazel also visited our camp. The otter frequents the brooks at the head of Salmon and Esquimaux rivers. In winter they rarely come outside, *i. e.*, to the coast.

It is well known that in Newfoundland the bears, especially those living near shore, will eat fish, their diet being mixed, and such bears are more savage than those in the interior which live chiefly on berries and ants. While on Caribou island a fisherman living a mile and a half from us had his sea-trout nets invaded by two old bears accompanied by a young one; at low water they would walk out to the nets, tearing them apart in order to eat the fish.

Speaking of trout, there are two kinds; one living in the brooks and lakes, the other the sea trout, a handsome fish about twelve inches in length, whose food we found consisted of a surface-swimming marine shrimp, the *Mysis oculata*, which lives in immense shoals. The sea trout is taken in nets, and so far as we experimented do not, in salt water, rise to the fly.

Although it was now the 15th of July the warmer summer weather had not yet come, we were told by the people on shore. There is, however, scarcely any spring in Labrador. The rivers open and the snow disappears by the 10th of June as a rule, and then the short summer is at once ushered in.

Potatoes and especially turnips are raised without much difficulty as far north as Caribou island. Rhubarb is said to do well farther up the coast towards the Mecatina islands. Among the wild flowers blooming in the middle of July were the dandelion and *Potentilla anserina.* Another Potentilla was the *P. tridentata,* the mountain trident, with its three-toothed leaf and modest white flower. It was pleasant to see this flower, so familiar from my earliest childhood, as it flourishes on the plains of Brunswick, Me., and is common on Mt. Washington as well as on the mountains of Maine, and abounds on the bare spots about Moosehead lake, particularly at the foot of Mt. Kineo. The wild currant, strawberry and raspberry were in flower; the strawberry plants were luxuriant, sometimes eight inches in height, but the raspberries were dwarfed, not exceeding the strawberry in height. Up the rivers the raspberries and blackberries are abundant, but the latter low and dwarfish.

The shad bush (*Amelanchier canadensis*) was now in flower, blossoming in Southern New England in April or early May, while *Rubus chamæmorus,* the cloud berry, so abundant in Greenland and Arctic America as well as on the fields of Norway and Sweden and the "tundras" of Siberia, was going out of flower. With it were associated the star-flower, *Trientalis americana,* a few *Clintonia borealis, Smilacina bifoliata* and probably *S. stellata, Streptopus amplexifolia;* one or two species of Andromeda; an Iris, species of Vaccinium, the *Arctostaphylus uva-ursi* or bear berry; the shore pea, a honeysuckle (*Lonicera cœrulea*), a Viburnum, and also the buckbean (*Menyanthes trifoliata*).

Among the flowers fluttered the white butterfly (*Pieris frigida*), a *Colias labradorensis, Argynnis triclaris* and some geometrid moths, while a few owlet moths flew out of the grass at the late twilight, which now lasted until near eleven o'clock at night, when fine print could be read.

We were told that the average temperature in June here is 48°, that of July 56°. In the warmer days of summer the thermometer rises from 64° to 68°, rarely to 70°. July 17th was one of the warmest and most pleasant days of the month; the temperature was 60° F. The 21st, however, was much warmer, the thermometer being 72° F.

July 18th was the day of the eclipse; the sun was obscured in the forenoon; the light of day was much modified, though not approaching twilight. The steamer which we saw on the day of the storm in the Gulf of St. Lawrence was without doubt that which bore the Coast Survey eclipse party to Cape Chidleigh, where the eclipse was total.

(*To be continued.*)